

## R E M A R K S

Claims 1-3, 5, 7, 9, 11-14, 16, 18, 21, 24, 29-30, 34, 37, 51, 54-56, 58-59, and 62-65 are in the case. The withdrawal of the rejections of the claims over Rosen et al. (U.S. 5,919,983) is noted with sincere appreciation.

The amendment to the Specification (in Example 1) corrects a typographical error. It is clear from the molecular weight of N,N-dimethylaniline (121.18 g/mol) that 1.90 g of N,N-dimethylaniline is 15.7 millimoles, not 15.7 moles.

### **Rejections for nonstatutory obviousness-type double-patenting**

There are two rejections of the present claims under the judicially-created doctrine of non-statutory obviousness-type double-patenting. In each double-patenting rejection, Claims 1-3, 5, 7, 9, 11-14, 16, 18, 21, 24, 29-30, 34, 37, 51, 54-56, 58-59, and 62-65 of the present application are rejected as patentably indistinct from:

- Claims 17-49 of U.S. 6,162,950; and
- Claims 1-62 of U.S. 6,169,208.

Each of these rejections is respectfully traversed, and it is respectfully requested that they be reconsidered and withdrawn. For the record, it is noted that U.S. 6,388,138, applied in the obviousness rejection below, is a division of U.S. 6,169,208.

In order to expedite prosecution of this case, a Terminal Disclaimer over U.S. 6,162,950 and U.S. 6,169,208 is being filed herewith, along with the authorization of the fee therefor. Thus, these double patenting rejections are believed to be no longer applicable. No acknowledgment that the claims are patentably indistinct is made by the submission of the Terminal Disclaimer.

### **Rejection under §103(a)**

Claims 1-3, 5-7, 9, 11-14, 16, 18, 21, 24, 26, 29-30, 34, 37, 40, 47, 51, 54-56, 58-59, and 62-65 stand rejected under 35 U.S.C. §103(a) as obvious over Lee (U.S. 6,388,138). Applicants respectfully request reconsideration of this rejection.

The Examiner is thanked for his telephonic communication of December 15, 2008, with the undersigned indicating that a side-by-side comparison of Lee and the claimed invention might be needed to overcome the obviousness rejection in this case. Applicants submit that such side-by-side comparison is not necessary, as the present Specification and Lee provide enough information for a suitable comparison of Lee and the presently claimed invention. In Examples 1-3 of the Specification, N,N-dimethylaniline and potassium tetrakis(pentafluorophenyl)borate were brought together, and then HCl was added. Examples 1 and 2 of Lee teach forming N,N-dimethyl-N-phenylammonium chloride from N,N-dimethylaniline and HCl, and contacting the N,N-dimethyl-N-phenylammonium chloride with magnesium di[tetrakis(pentafluorophenyl)borate]. Relative amounts and yields for these Examples are shown in Table 1 below.

TABLE 1

Present case	Ex. 1	Ex. 2	Ex. 3	Lee	Ex. 1	Ex. 2
Excess acid <sup>1</sup>	12%	10%	10%	Excess ammonium	88%	60%
Excess amine <sup>1</sup>	7%	6.6%	5%			
Yield	95% <sup>2</sup>	95% <sup>2</sup>	88% <sup>2</sup>	Yield	86-89%	95% <sup>2</sup>

<sup>1</sup> The excess acid and excess amine are relative to the moles of borate anion.

<sup>2</sup> Isolated yield.

Unexpected results have been obtained in the present case. Present Example 2 and Lee's Example 2 both have the same isolated yield, 95%. A 60% excess of the ammonium chloride salt was used in Lee, while in present Example 2, six-fold less excess acid and nearly ten-fold less excess amine were used in comparison to the excess amount of the ammonium chloride in Lee's Example 2. As mentioned in the Specification at Page 3, paragraph 0011, the claimed order of addition allows nearly stoichiometric amounts of both the amine and the protic acid to be used, *without decreasing the product yield*, an unexpected result. The lower amounts of amine and protic acid needed lead to decreased material costs, and reduction in the amount of waste produced by the process, while permitting a high yield of the desired product to be attained.

Moreover, a closer side-by-side comparison is not possible, as the reaction steps of the present case are quite different. In Lee, a protic ammonium salt is formed from an amine and a protic acid, and then the protic ammonium salt is combined with the magnesium borate. In contrast, in the present case, an amine is combined with a borate compound, and then the amine/borate mixture formed therefrom is combined with a protic acid.

There appears to a misunderstanding or misinterpretation of the present claims in the present Office Action. More specifically, the Action states that

"Applicants' claim process is narrower in scope than the teaching of the prior arts references." (Page 4, lines 11-12); and  
"[F]ollowing the process steps and conditions taught by Lee to arrive at the instantly claimed process." (Page 4, lines 4-5)

The present claims are not directed to a narrow portion of the process taught in Lee, but are instead directed to a *different process*. That the presently claimed process can produce the same compounds as taught in Lee does not automatically make the claimed process the same as or an obvious variant of the process disclosed in Lee. In fact, following the steps of the process in Lee would not have caused one of ordinary skill in the art to arrive at the instantly claimed process. As described above, the present claims are directed to a process in which an amine is combined with a borate compound, and then an acid is brought into contact with the mixture. A protic ammonium salt is never separately made in the present claims.

Concentration is mentioned twice in the present Office Action (Page 3, lines 2-3; Page 5, lines 16-17). First, contrary to the contention in the Office Action (Page 2, lines 17-18), Applicants' arguments in response to the previous Office Action did not state that the prior art employed a different concentration of ammonium salt. An ammonium salt is not made in the presently claimed processes prior to combining the amine with the borate compound, so it is difficult to understand how the ammonium salt concentrations could be meaningfully compared.

Contrary to the assertion in the present Office Action (Page 5, lines 10-13), Lee does not teach the elements of the presently claimed invention, much less with sufficient guidance and particularity to have made the present invention obvious to one of ordinary skill in the art, nor could the present invention have been made by combining known elements to yield predictable

results. As shown and described above, the present invention has unexpected results, not predictable results.

Further, the description of certain "elements" in the Office Action is misleading, in particular, "amine and a protic acid for making protic ammonium tetrakis(Faryl)borate)" (Page 5, lines 19-21). The amines and protic acids are used in Lee to make protic ammonium acid salts, which are then used in the desired reactions with the magnesium diborates. Other ways of employing the amine and protic acid are not contemplated anywhere in Lee.

Thus, for all of the foregoing reasons, this rejection should be reconsidered and withdrawn.

In light of the foregoing remarks, the case is believed to be in condition for allowance. Prompt notification to this effect would be sincerely appreciated.

If any matters remain that require further consideration, the Examiner is requested to telephone the undersigned at the number given below so that such matters may be discussed, and if possible, promptly resolved.

Please continue to address all correspondence in this Application to Albemarle Corporation at the address of record.

Respectfully submitted,

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